



☐ DESIGN ☒ UTILITY PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: David R. Payne, Gerald A. Stangl,
Norman E. Stevens, Jr., and Michael
F. Gard

Serial No: 10/617,975

Filed: July 12, 2003

For: SYSTEM AND METHOD FOR
AUTOMATICALLY DRILLING AND
BACKREAMING A HORIZONTAL BORE
UNDERGROUND

Att'y Dkt. No.: 082380-00561

Art Unit: 3671

Examiner: Not Yet Assigned

Customer No.: 28839

Mail Stop Amendment
Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT AND RESPONSE TO OFFICE ACTION
MAILED JULY 2, 2004

Applicant respectfully requests that the above application be amended as follows:

In the claims

Claims 1-3. Withdrawn.

4. (Currently Amended) A method for backreaming a horizontal borehole,
the method comprising:

automatically rotating and pulling a drill string having a backreamer through the
horizontal borehole;

5 automatically reducing a length of the drill string ~~when the drill string must be~~
~~shortened~~;

automatically reducing a rate of pullback if a rotation pressure on the drill string is
greater than a predetermined limit; and